

## **ABSTRACT**

Three-dimensional structures are provided which improve manufacturing yield for certain structures in semiconductor devices. The three-dimensional structures take into account the interaction between an upper layer and a lower layer where the lower layer has a tendency to form a non-planar surface due to its design. Accordingly, design changes are performed to make structures more likely to function, either by forming a more planar surface on the lower layer or by compensating in the upper layer for the lack of planarity. The changes to improve manufacturing yield are made at the design stage rather than at the fabrication stage.